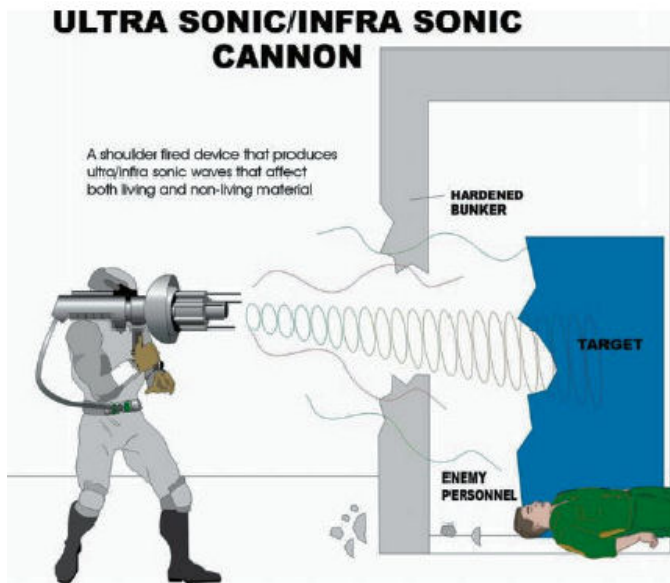


SHARON WEINBERGER

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# Where's My Acoustic Bazooka?

It never got a lot of publicity, but in 2002, American Technology Corp., best known for its Long Range Acoustic Device, worked on a prototype of an Acoustic Bazooka, a man-portable nonlethal weapon that would blast the living heck out of anyone it encountered. According to one account of that early weapons work in *Signal* [...]



It never got a lot of publicity, but in 2002, American Technology Corp., best known for its Long Range Acoustic Device, worked on a prototype of an Acoustic Bazooka, a man-portable nonlethal weapon that would blast the living heck out of anyone it encountered. According to one account of that early weapons work in *\*Signal \*Magazine*, this weapon was:

\*...a crude test device consisting of three to four transducers stacked together to form a column or tube that is three or four feet long and three to four inches in diameter. The device produces a range of sound patterns across frequencies to which humans are sensitive. He notes that in its current configuration, the DSR can make its target extremely uncomfortable. "If you stand in the beam for more than 10 or 12 seconds, you get sick. People turn as green as grass, and you can pulse it in such a way that their ears don't really recover—so they keep getting this uncomfortable effect and they can't brace themselves to get away from it," he explains. \*

I have just one question: where the heck is my Acoustic Bazooka? I want one, perhaps even two or three. Over the past few months, I've been on a sonic blaster kick: I described Penn State's plans to test new new sonic blasters; I've followed the burgeoning competition for "sonic blasters" (referred to more prosaically as "long-range hailing devices"); and in Israel, I even subjected myself to a "sonic barrier" that claims to make people dizzy and nauseous.

So where or where is my bazooka? The answer is encapsulated in this very thorough article that came out last year in *Military Medicine*; it

chronicles, among other novelties, the fate of the Acoustic Bazooka. It basically says I don't have my bazooka, because, well, there's no proof that it actually works as a nonlethal weapon:

\*More recently, a device nicknamed the "acoustic bazooka," more formally known as the directed stick radiator or high-intensity directed acoustics, was developed to serve as either a voice-hailing signal device or supposedly a nonlethal weapon that makes "people turn as green as grass" with sickness. The original research effort, however, consisted of equipment development and was not intended to evaluate aversive effects on humans. No results of any such testing have been published, to date, in the scientific literature. It has been suggested that the device could "have the capacity to knock people off their feet." A "long-range acoustic device" has been deployed by the U.S. military in Iraq and by the New York Police Department. The device was intended for use as a communication device, however. Although some news outlets have referred to recent uses of the long-range acoustic device (e.g., on a cruise ship on November 7, 2005) as "nonlethal weapon" deployment, such systems are still described by the manufacturer as "designed beneath pain thresholds" and "not nonlethal weapons." They have been represented elsewhere as devices "designed to modify the behavior of personnel with a high intensity warning tone" and to "deliver a shrill 145 dB tone . . . causing headaches and panic." \*

The article goes on to dissect, in wonderful detail, the complete lack of evidence that sonic blasters can be used as anything other than hailing devices (or instruments for damaging hearing). For example, on infrasound, the article notes:

\*In a review of the technology, the Swedish Defence Material Administration concluded that the possible danger attributable to infrasound "has been much over rated." According to Backteman et al., the Swedish Board of Occupational Safety and Health stated that there was no scientific proof of an association between infrasound and consequences such as nausea and malaise. Moller also suggested that extra-auditory effects of infrasound "seem to have been exaggerated." Bunker noted that the alleged effects of infrasound for use as a nonlethal weapon have been questioned because of contradictory evidence presented in previous reports. Small speculated that forthcoming technological innovations could result in an effective acoustic weapon that would not be subject to problems of direction and attenuation. When discussing the practical limitations of technology, however, Altmann suggested that, because of basic physical principles, the development of a useful weapon using high-intensity acoustic energy is unlikely. Regarding infrasound, Altmann noted that "it turns out that infrasound or prominent in journalistic articles or does not have the alleged drastic effects on humans." In another assessment of nonlethal acoustic technology, no useful extra-aural behavioral effects were reported. "Infrasound auditory devices" were included in examples of programs that were discontinued after negative assessments. \*

The article concludes with a damning finding: "On the basis of results of numerous investigators, it seems unlikely that high-intensity acoustic energy in the audible, infrasonic, or low-frequency ranges will provide a device suitable to be used as a nonlethal weapon."

So much for my acoustic bazooka. I'm still holding out hope for a death ray.

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